

Management of Fishing Capacity for Sustainable Fisheries: RPOA-Capacity

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The increasing demand for fish prompts many fishers with highly-equipped fishing boats, to unceasingly chase for fish oblivious of the impacts of any irresponsible operations on the resources. The uncontrolled exploitation of the fishery resources ends up with overcapacity, which in turn lures fishers to engage in illegal fishing operations resulting in overfishing, and ultimately to resources depletion. Under such a scenario, the task of managing the fishery resources on a sustainable basis has become increasingly challenging, and the immeasurable threats of over-exploitation and degradation of aquatic habitats have become serious problems, especially in the Southeast Asian region. Recognizing that overfishing and overcapacity seriously threaten the sustainable management and conservation of fishery resources, and the severity of such problems, the Ministers of the ASEAN-SEAFDEC Member Countries responsible for fisheries through the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020, had resolved to promote better management of fishing capacity and the use of responsible fishing technologies and practices. Specifically, such agreement led to recognition and movement towards the replacement of the “open access” to fisheries resources with “limited access” through rights-based fisheries as well as to secure the rights and well-being of inland and coastal fisheries communities. As a leading regional organization working towards the promotion of sustainable fisheries management and countermeasures to combat IUU fishing in the Southeast Asian region, SEAFDEC has exerted continuous efforts to address this serious issue. Through series of consultations organized by SEAFDEC with funding support from the Japanese Trust Fund and the SEAFDEC-Sweden Project, the SEAFDEC Member Countries came up with a draft Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity) to serve as management tool and voluntary guidelines for preventing over-exploitation of the fishery resources and consequently combating IUU fishing in the region.

Management of fishing capacity is one of key elements in fisheries management that strives to match fishing effort with available resources in order to protect important habitats as well as enforce regulations to safeguard the interest of specifically vulnerable groups of people. In general, such fisheries management scheme is aimed at regulating active fishing effort by developing schemes and management plans that would give directions as to: where, how, when and by whom to fish. These management directions could include information on total number of vessels allowed at a given time and area; the type of gear to be used (and not to be used);

special restrictions on protected areas, protected species and defined seasonal restrictions; traditional rights to fish, exclusive rights and other specified rights; as well as other additional aspects that should be considered and respected when regulating the actual fishing effort.

In the development of the aforementioned RPOA-Capacity, reference has been made to the FAO Code of Conduct for Responsible Fisheries, especially the several recommendations on the need to address the concerns relevant to the improvement of fisheries management. Furthermore, the development process also referred to the subsequent FAO International Plan of Action on the Management of Fishing Capacity 1999 (IPOA-Capacity), which include a number of steps to be taken in managing capacity. These include: a) assessment and monitoring of fishing capacity; b) preparation and implementation of national plans of action (NPOA-Capacity); and c) international (regional) considerations and recommendations for immediate steps to address the management of fishing capacity. A number of countries in the Southeast Asian region have already developed or are in the process of developing their respective NPOA-Capacity, although there are some countries that still need to develop their NPOA-Capacity, their existing laws and regulations are in place that are supportive to the management of fishing capacity.

On the request of the ASEAN Member States (AMSs), SEAFDEC has been organizing experts’ meetings and regional technical consultations highlighting on the critical importance of addressing the management of fishing capacity in Southeast Asia to reduce pressure on available fish stocks, mitigate conflicts of resource users over the fishery resources, and promote sustainability for people dependent on the fishery



resources. Unregulated (and/or un-enforced) fisheries and over-capacity, relative to available resources, also tend to increase incidences of illegal fishing within countries, as well as across boundaries with increased hardship facing the smaller communities as a result. To improve the levels of sustainability and equal sharing of benefits from fisheries, immediate efforts have been called for to reduce over-capacity and strengthen the implementation and/or enforcement of regulatory measures, with the overall objective of combating illegal fishing throughout the Southeast Asian region.

Development of the RPOA-Capacity

The importance of managing fishing capacity for the sustainability of fisheries and food security was one of the major concerns raised during the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 in June 2011 in Bangkok, Thailand. Specifically, “Management of Fishing Capacity” was given full focus during the Conference and subsequently, was reflected in the 2011 Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 (SEAFDEC, 2011). In a related development, Malaysia through its Department of Fisheries (DOF), as the Lead Country for the cluster on “Promoting Sustainable Fisheries Practices - Fishing Capacity and Responsible Fisheries Practices” under the ASEAN Fisheries Consultative Forum (AFCF) developed the Guidelines for Development of National Plan of Action for

Management of Fishing Capacity (NPOA-Capacity) based on the country’s experience in addressing the issues on fishery resources depletion due to overcapacity in fisheries (Shaupi, *et al.*, 2011). This development was also meant to support the AMSs in their efforts of establishing their respective NPOAs-Capacity in accordance with the requirements of the AFCF.

The abovementioned Guidelines developed by Malaysia focuses on strategies relating to the effective management of national fishing capacity for sustainable exploitation of the fishery resources for future generation. In order to promote the Guidelines to the other AMSs and upon their request, SEAFDEC provided the platform for all ASEAN-SEAFDEC Member Countries to meet and discuss the future actions that need to be undertaken. As a result, it was agreed that the approaches to support the management of fishing capacity for the region should be identified through the development of the Regional Plan of Action for Management of Fishing Capacity (RPOA-Capacity) based on the revised Guidelines for Development of NPOA-Capacity by the AMSs (SEAFDEC, 2015a; SEAFDEC, 2015b; SEAFDEC, 2015c).

The RPOA-Capacity is meant to serve as a guidance for the management of fishing capacity in an ASEAN perspective and also to support the countries in the development and implementation of their respective NPOAs-Capacity. The RPOA-Capacity is also envisioned to be a useful tool for fisheries management and/or capacity management at the sub-

Box 1. Key issues and feasible measures identified as basic reference for development of RPOA-Capacity

Issues	Feasible Measures	Technical Assurances
Policy and Legal Framework in Managing Fishing Capacity		
1) Ineffective policies, legal framework in managing fishing capacity <ul style="list-style-type: none"> • Decisions inconsistent with current policies • Lack of political will and awareness towards conservation and fisheries management • Subsidies vs. incentives 	<ul style="list-style-type: none"> • Strengthen good governance • Voice out in ASEAN platform • Identify gaps and issues in legal framework • Consistency in policy and implementation (both national and regional levels) 	<ul style="list-style-type: none"> • Consultations to improve understanding by politicians/policy makers using recommendations based on scientific evidence • Capacity building
Information for Fishing Capacity Management (vessels, gears, and fishers)		
2) Insufficient information for fishing capacity management <ul style="list-style-type: none"> • Data on concerned fishing capacity (e.g. no. of fishing boat, gears, fishers) • Incomplete information of gear specification and documentation (e.g. length of fishing gear) 	<ul style="list-style-type: none"> • Identify gaps • Develop common database • Economic and financial studies on the impacts of capacity management 	<ul style="list-style-type: none"> • Review works • Organize trainings/workshops/ consultations • Develop appropriate gear specification and design for sustainability of resources • Provide guidance technology systems including VMS, Automated Identification System (AIS) databases, GRMS (mobile telephone system), etc. • Information sharing on active fishing capacity
Information for Fishing Capacity Management (fishery resources)		
3) Inadequate data and information on fisheries resources <ul style="list-style-type: none"> • Lack of policies/systems to deal with fisheries management in data poor situation • Lack of expertise to assess fishing capacity 	<ul style="list-style-type: none"> • Identify gaps • Develop common SOP (feasible and effective method) for data collection • Capacity building program 	<ul style="list-style-type: none"> • Reviews • Organize trainings/ workshops/consultations • Stock assessment, improve data collection and methodologies for both marine and inland fisheries

Box 1. Key issues and feasible measures identified as basic reference for development of RPOA-Capacity (Cont'd)

Issues	Feasible Measures	Technical Assistances
4) Lack of research and assessment of migratory shared stocks	<ul style="list-style-type: none"> • Capacity building • Conduct research and assessment of migratory shared stocks • Information dissemination 	<ul style="list-style-type: none"> • Organize the regional fora • Conduct trainings/workshops/consultations
Capacity and Capability to Manage Fishing Capacity		
5) Inadequate capacity and capability for monitoring, control and surveillance <ul style="list-style-type: none"> • Encroachment of local fishing vessel into prohibited area • Encroachment of foreign fishing vessels 	<ul style="list-style-type: none"> • Strengthening MCS • Inter-agencies and inter-countries coordination • Utilization of “Fishermen eyes” (co-management) • Improve law enforcement • Information sharing on MCS • Capacity building program • Promote co-management, decentralization, EAFM • Input control (vessels, licenses, gears, days at sea) • Output control (TAC, quota, MPA, zoning, spatial and temporal measures, minimize discards) • Increase license fees (for commercial scale fisheries) • Cooperation with relevant authorities to ensure safety of fishing vessels (inspection and certification as part of fishing license requirements) • Promote alternative livelihood (other than fishing) • Reduce low cost labors on fishing fleets 	<ul style="list-style-type: none"> • Organize trainings/workshops/consultations • Flag and Port State Measures trainings and inspections • Safety inspections • Legal and regulatory technical assistance • Development of NPOA-capacity and determination of target fishing capacity
Public Awareness		
6) Insufficient public awareness and participation of <ul style="list-style-type: none"> • Fishers • General public (exclude fishers e.g. consumers) 	<ul style="list-style-type: none"> • Fishers/stakeholders fora (at local, national and regional levels) • Media and awareness campaign • Information, education and communication program (IEC) 	<ul style="list-style-type: none"> • Organize the regional fora • Conduct trainings/workshops/consultations
7) Market-driven pressure <ul style="list-style-type: none"> • Demand for fish promoting unsustainable fishing practices (e.g. high priced fish, endangered fish, trash fish) 	<ul style="list-style-type: none"> • Promote EAFM • Public awareness to consume fish from sustainable fisheries • Requirements for aqua feeds and raw materials for export causes pressure to the fishing capacity 	<ul style="list-style-type: none"> • Support training courses

regional areas such as in the Andaman Sea, Gulf of Thailand, and Sulu-Sulawesi Sea. During the consultations organized for developing the RPOA-Capacity, the key issues and measures with regards to the management of fishing capacity including practical actions and useful measures to consider in the process of developing the RPOA-Capacity were identified as shown in **Box 1**.

The final draft the RPOA-Capacity was then endorsed by the SEAFDEC Council of Directors during its 48th Meeting in April 2016 (SEAFDEC, 2016). Finally, the final draft was considered by the ASEAN for publication and dissemination during the 23rd Meeting of the ASEAN Sectoral Working Group on Fisheries in May 2016. Meanwhile, for the development of NPOA-Capacity, the AMSs could refer to the experience of Japan in coping with overcapacity and overfishing (Iwata and Sulit, 2016) and for estimating the maximum sustainable

yield reference could be made to a case study carried out in Viet Nam (Phuong *et al.*, 2016). Nonetheless, many countries have already initiated efforts to manage their fishing capacity



The Regional Technical Consultation that came up with the final draft of the RPOA-Capacity for submission to the SEAFDEC Council.

Box 2. Initiatives of AMSs in managing their respective fishing capacity and developing the NPOA-Capacity

Cambodia

The country's legislative and institutional systems for fishing capacity management for the marine fisheries subsector are in place, *i.e.* under the Law on Fisheries 2007 (adopted in 2006 and published in 2007):

- Article 45 - All types of fishery exploitation in the marine fisheries domain, except subsistence fishing shall be allowed only upon possession of license and the exploitation shall follow the conditions and obligations in fishing logbook. The model of fishing logbook shall be determined by proclamation of the Ministry of Agriculture, Forestry and Fisheries (MAFF).
- Article 47 - Fishermen shall transship fishery products at a fishing port determined by Fisheries Administration (FiA). Foreign fishing vessels permitted to fish in the marine fisheries domain shall inform the FiA prior to port in marine fisheries domain in Cambodia. Other terms and conditions on transshipment of fishery products and anchoring of foreign fishing vessels shall be determined by FiA.
- Article 48 - Based on precise scientific information that the fishing practices have been or are being the cause of serious damage to fish stocks, FiA has the right to immediately and temporarily suspend fishing activities and propose for a re-examination of the fishing agreement in order to seek for the decision of the MAFF.

For the NPOA for management of fishing capacity, the country's marine capture fisheries is classified into two (2) levels, namely: national fishing is managed by the Ministry of Agriculture, Forestry and Fisheries (MAFF) and Fisheries Administration (FiA), whereas international fishing is managed the Cabinet of the Prime Minister Office. The NPOA-Capacity had already been drafted and the Inter-Ministries Joint Working Group was formed to accelerate the approval and implementation of the NPOA.

Indonesia

The legal frameworks governing marine fisheries subsector in Indonesia include:

- Act No. 31/2004 as amended by No. 45/2009 on Fisheries.
- Act No. 27/2007 as amended by No. 1/2014 on Coastal and Small Islands Management.
- Regulation of Government No. 60/2007 on Fish Resources Conservation.
- Ministerial Decree No. 45/2011 on Estimation of Fish Resources Potential in FMA.

Activities relevant to management of the country's fishing capacity has been undertaken in terms of data collection and reporting, moratorium to imported fishing vessels, prohibition of transshipment at sea, prohibition of lobster and crab catch, prohibition of trawls and seine nets, and establishment of closing area for fishing (conservation). Its NPOA-Capacity is still in the draft stage and yet to be launched. This NPOA is referred to as technical guidelines and detailed action plan within the framework of managing fishing capacity.

Malaysia

The Fisheries Act 1985 provides the legislative framework for the conservation, management and development of the capture fisheries in Malaysia. The development of the country's fishing industry closely follows the National Agro-Food Policy 2011-2020 (NAP) on "Sustainable development of capture fisheries industry is important to ensure fisheries resources are preserved and could be sustained for the future."

Phase-2 of its NPOA-Capacity was adopted, and it is focused on 12 identified issues and challenges and 3 strategies: The strategies for such NPOA-Capacity are: 1) Review and implement effective conservation and management measures; 2) Strengthen capacity and capability for monitoring and surveillance programs; and 3) Promote public awareness education programs. For long term objective of Phase 2 of the NPOA-Capacity, Malaysia aims to achieve an efficient, equitable and transparent management of fishing capacity in marine capture fisheries by 2018.

Myanmar

The country's legal framework on management of fishing capacity is under the Myanmar Marine Fisheries Law (1990) and the 1989 law relating to fishing rights of foreign fishing vessels. In addition, the country's regulations related to management of fishing capacity are in place, *i.e.*: 1) prohibiting the building or importing of new fishing vessels; 2) prohibiting fishing operations in high seas; 3) trawls may be transformed into other fishing gears, but other fishing gears cannot be transformed to trawls; 4) flag State measures and port State measures including the installation of VMS and implementation of the Catch Certification Scheme. The challenges and future implementation for management of fishing capacity in Myanmar include: 1) Promotion of effective inspection for all fishing vessels at sea; 2) Initiating the use of VMS for effective MCS system in all fishing vessels; 3) Using TEDs and JTEDs in trawl fishing vessels; and 4) Conduct of study on the survey of fishing capacity of each fishing gear group.

Philippines

The country's relevant legal and institutional frameworks cover two classes of fishing vessels, *i.e.*: 1) Commercial Fishing - fishing with the use of fishing vessels 3.1 Gross Tons (GT) and above and operating beyond 15 km from the shoreline; and 2) Municipal Fishing - fishing with the use of fishing vessels less than 3.1 GT and operating within the area of 15 km from the shoreline. Registration of commercial fishing vessels is mandated by the Maritime Industry Authority (MARINA) while registration of municipal fishing vessels is delegated to the Local Government Units (LGUs). Meanwhile, licensing of commercial fishing vessels is the mandate of the Bureau of Fisheries and Aquatic Resources (BFAR) while licensing of municipal fishing vessels is the authority of the LGUs.

The Philippines does not have an NPOA on Fishing Capacity Management yet, however there is a plan to develop the NPOA-Capacity within 5 years. Nevertheless, Philippines has established a moratorium on the issuance of new licenses and other clearances as well as stopped building new boats and importing second hand boats. Philippines also conducted joint mobile registration and licensing with MARINA and conducted an inventory of all commercial fishing boats. These relevant issues are the challenges for the Philippines to implement in near future.

Singapore

Based on the legislative and institutional systems in Singapore, fishing capacity is monitored through catch declaration and reporting which are parts of the licensing requirements of the Agri-Food & Veterinary Authority. There are no more licenses issued for inshore fishing vessels. Related to the NPOA-Capacity, Singapore initiated inter-agency engagements to have regular discussion and coordination towards the development of its NPOA against IUU fishing activities, including the implementation of relevant measures under the Port State Measures Agreement (PSMA). In addition, Singapore plans to review of policies and amendments to its Fisheries Act to further strengthen the aspect on enforcement powers.

Box 2. Initiatives of AMSs in managing their respective fishing capacity and developing the NPOA-Capacity (Cont'd)

Thailand

The country's legal and institutional frameworks related to management of fishing capacity make reference to the Fisheries Act superceded with the Royal Ordinance on Fisheries 2015 which comprises 11 Chapters and 104 sections, and put into force in April 2015. The enactment of this law was aimed primarily at conserving the fishery resources, particularly in freshwater or inland habitats, coastal habitats and marine habitats. The Act contains a provision for the adoption of a regulation (requiring Cabinet's approval) and a notification (to be issued by responsible Ministry in pursuant to the Act). A number of regulations and notifications have been adopted and issued for the management of both freshwater and marine fisheries. The Chapters are: Fisheries Management, Fishery Zone, Promotion of Aquaculture, Standard of Fish or Fish Products, Importation and Exportation of Fish and Fish Products, Overseas Marine Fishery, Fees on License or Permit and Substitute, Transferability, Competent Official, Administrative Measure, Penalties. The Department of Fisheries (DOF) serves as the principal agency dealing with fishing, marine resources, and the management of maritime habitats. The Department of Marine and Coastal Resources (DMCR) and the Office of Natural Resources and Environmental Policy and Planning (ONEP), under the Ministry of Natural Resources and Environment (MONRE), with some legal mandates overlapping with those of the DOF, are particularly concerned with the maritime and coastal areas, and have been working closely with DOF.

Viet Nam

In Viet Nam, the NPOA-Capacity was developed and adopted in principle with reference to the country's legal documents such as Fisheries Law (2003); Viet Nam's Marine Strategy to 2020; Government's relevant decrees, resolutions and decisions; as well as to the international legal documents such as International Convention on the Law of the Sea (1982); Code of Conduct for Responsible Fisheries (FAO, 1995); and the FAO Technical Guidelines or IPOA for the Management of Fishing Capacity. The specific objectives are: (1) to reduce total trawl fishing boats by 15% in 2014-2017, and 12% in 2018-2025; (2) Fisheries co-management is applied for 8 coastal provinces in 2014-2017, and 28 provinces in 2018-2025; and (3) Fishing boats are controllable in consistence with allowable resources of each particular area in 2018-2025.

as preparation for the development of their respective NPOAs-Capacity (Box 2).

Way Forward

With reference to the final draft of the RPOA-Capacity developed through a series of the consultations/meetings and endorsed by the ASEAN-SEAFDEC Member Countries, SEAFDEC would consult with the relevant stakeholders to ensure that RPOA-Capacity would gain maximum support. In addition, awareness of concerned stakeholders, *i.e.* fishing vessel owners or fisheries industrial sectors of the measures/regulations included in the RPOA-Capacity would be enhanced. Considering that managing of fishing capacity is linked to fishery resources management, therefore, there is a need to strengthen and enhance the regional and/or sub-regional cooperation to ensure the effective implementation of sustainable utilization of fish stocks for some semi- or highly-migratory species. In this regard, the industrial sector and/or fisheries private sector would be tapped to play an important role in supporting the implementation of the RPOA-Capacity,



especially in: 1) implementing the Catch Documentation Scheme to support the data for stock assessment; 2) regularly providing registers for the boat and gear licensing systems; 3) conserving the early life cycle stages of fishes in spawning and nursery grounds, and protecting the migratory paths; and 4) the effective implementation of NPOA-Capacity, among others.



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